



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,902	08/28/2006	Takashi Akaba	062790	4368
38834 7590 10/01/2009 WESTERMAN, HATTORI, DANIELS & ADRIAN, LLP 1250 CONNECTICUT AVENUE, NW SUITE 700 WASHINGTON, DC 20036				
EXAMINER NGUYEN, HUNG D				
ART UNIT 3742		PAPER NUMBER		
NOTIFICATION DATE 10/01/2009		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentmail@whda.com

# Office Action Summary

## Application No.

10/590,902

## Applicant(s)

AKABA ET AL.

## Examiner

HUNG NGUYEN

## Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 2-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. This office action is responsive to the amendment filed on 7/21/2009. As directed by the amendment: claim 1 has been canceled and new claims 6-7 have been added. Thus, claims 2-7 are presently pending in this application.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

#### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berbakov (US Pat. 4,438,600) in view of Wegener (US Pat. 6,601,426) (Previously cited).

4. Regarding claims 2-3, Berbakov discloses an apparatus for improving residual stress of piping, the T-piping comprising a first piping 44 (Fig. 1) having one end welded and connected to a tubular circumferential surface of a second piping 46 (Fig. 1), and comprising: a circumferential-direction position adjusting structure for moving the laser head along a circumferential direction about a tubular axis of the first piping 44 (Fig. 1; circular axis of shaft 16 Fig. 2); a tubular axial-direction position adjusting structure for moving the laser head along a tubular axial direction of the first piping (Vertical axis of

shaft 16, Fig. 2); a radial-direction position adjusting structure for moving the laser head along a radial direction of the first piping (Horizontal direction of 23 Fig. 1); wherein the circumferential-direction position adjusting structure includes a rail mounted on a surface of the first piping 44 (Fig. 1). Regarding claim 4, Berbakov discloses the weld head 41 (Fig. 1A) is provided in a weld head support portion 38 (Fig. 1A) so as to be moved in an oscillatory manner .

5. Berbakov fails to show the irradiates an outer surface of a T-piping with a laser beam emitted from a laser head and an emission-direction adjusting structure for changing an emission direction of the laser beam in a plane including the tubular axis of the first piping, by changing a direction of the laser head; and a second emission-direction adjusting structure for changing the emission direction of the laser beam in a plane intersecting the plane including the tubular axis of the first piping, by changing the direction of the laser head.

6. Wegener discloses a laser emitter 28 (Fig. 1) serves as the welding head (Par. 3, Lines 33-38) and the laser head can rotate around axis y, z, D and 54 (Fig. 3; Col. 6, Lines 55-64).

7. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in Berbakov to have an apparatus for improving residual stress of piping, which irradiates an outer surface of a T-piping with a laser beam emitted from a laser head and an emission-direction adjusting structure for changing an emission direction of the laser beam in a plane including the tubular axis of the first piping, by changing a direction of the laser head; and a second emission-direction

adjusting structure for changing the emission direction of the laser beam in a plane intersecting the plane including the tubular axis of the first piping, by changing the direction of the laser head, as taught by Wegener, for the purpose of preventing stress-corrosion-cracking at the T-piping connection and improving the welding seam by irradiates a laser beam at all angles.

8. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Berbakov (US Pat. 4,438,600) in view of Wegener (US Pat. 6,601,426) in view of Schadler (US Pat. 6,825,438) (Previously cited).

9. Regarding claim 5, the combined Berbakow-Wegener discloses substantially all features of the claimed invention as set forth above except for the plurality of the laser heads are provided in a laser head support portion. Schadler discloses plurality of the laser heads are provided in a laser head support portion (Fig. 1). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in the combined references to have the plurality of the laser heads are provided in a laser head support portion, as taught by Schadler, for the purpose of welding multi-parts at one welding station.

10. Claims 6-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berbakov (US Pat. 4,438,600) in view of Wegener (US Pat. 6,601,426) in view of JP 58-170177 (Cited by applicant).

11. Regarding claims 6-7, the combined Berbakow-Wegener discloses substantially all features of the claimed invention as set forth above except for the rail includes a ring

shape surrounding a periphery of the first piping and the ring-shaped rail comprises two semi-arcuate rail members . Japan Patent 58-170177 discloses a rail includes a ring shape 24 (Fig. 1) surrounding a periphery of the first piping 10 (Fig. 3) and the ring-shaped rail comprises two semi-arcuate rail members 24 and 26 (Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize in the combined references to have the rail includes a ring shape surrounding a periphery of the first piping, as taught by JP 58-170177, for the purpose of securing the apparatus to the pipe.

12. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

2 Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUNG NGUYEN whose telephone number is (571)270-7828. The examiner can normally be reached on Monday-Friday, 9M-6PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUNG NGUYEN/  
Examiner, Art Unit 3742  
9/16/2009  
/TU B HOANG/

Supervisory Patent Examiner, Art Unit 3742